

# DENTAL CLEANING PROCEDURE

## **Animal Dental Specialists of Nevada**

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### **What happens during a “dental cleaning procedure?”**

It is a relatively simple thing to do a “dental cleaning,” right? Wrong! In fact, a dental cleaning procedure is as complex as any other procedure that requires general anesthesia. Here is a discussion of what is involved.

#### ***Before the dental procedure:***

All dental procedures in animals require general anesthesia. Prior to any anesthetic procedure, pre-anesthetic blood tests must be performed to ensure that organ functions are satisfactory for anesthesia. For some pets, additional tests might be recommended, such as chest x-rays, ECG, echocardiogram, or urinalysis. Sometimes antibiotic treatment is instituted before a dental procedure is performed, in some cases as much as 2-6 weeks prior to the dental procedure. Our office will discuss the specific pre-dental recommendations for your pet based on their age, exam, and health status.

#### ***Do I have to have an exam for my pet to have a dental cleaning?***

Yes. Our office must always do an exam in order to assess your pet's health, anesthetic risk factors, and to determine what the most appropriate procedure for your pet is. During this exam, your pet's available records will be reviewed and any required pre-anesthetic testing will be discussed. During this exam, we will be able to provide an estimate for the anticipated dental procedure. This is best accomplished by scheduling an initial exam and consultation prior to the day of the procedure. Pre-anesthetic testing should ideally be performed 1-2 weeks prior to the dental procedure. Some pets are put on medication to be given prior to the procedure in order to reduce anxiety or treat underlying pain or infection.

We understand that not everyone is able to come in for an exam prior to the procedure date. Some of our clients drive from other states to our office, and it is not practical to make the journey for a separate exam. If you are unable to bring your pet in for an exam prior to the dental procedure date, the exam and pre-anesthetic laboratory tests can be performed on the day of the procedure. However, be aware that the procedure may need to be postponed or cancelled if there are any significant abnormalities in the test results. In cases where we are doing an exam and procedure on the same day, we request that clients have their primary veterinarian perform complete blood work prior to the day of the procedure and forward it to our office. Also, we will not be able to prepare an accurate estimate for the procedure until we can do an exam on your pet.

#### ***What is done during the dental cleaning?***

The goals of a dental cleaning procedure are to remove the calculus (tartar) and plaque above and below the gumline, assess the health status of the teeth, and treat any dental disease that is discovered. Dental cleaning is a 10-step process.

**Step #1) Awake examination** of the head, face, neck, eyes, cheeks, jaws, mouth, and teeth. This helps to identify problems that may not be obviously visible inside the mouth.

**Step #2) Anesthetized examination** of the structures noted above, in addition to a complete exam of the mouth, teeth, and inside the throat.

**Step #3) Dental imaging.** During this step, full-mouth dental radiographs (x-rays) and a cone-beam CT (CBCT) scan are performed. Dental radiographs and CBCT will reveal problems that cannot be detected on visual examination alone. CBCT is advanced 3D imaging of the dental structures.

**Step #4) Supragingival cleaning** (above the gumline). The calculus and plaque are removed from the tooth surfaces by use of an ultrasonic scaler and with hand instruments that allow access to difficult to clean spaces.

**Step #5) Subgingival cleaning** (below the gumline). A special periodontal ultrasonic scaler and specialized hand instruments are used to remove the calculus and plaque that have accumulated below the gingival margin. The subgingival area is where periodontal disease develops. Therefore, this is the most important area to clean.

**Step #6) Polishing.** This removes any fine scratches left on the tooth surface by the ultrasonic scaler. Leaving scratches or roughened tooth surface promotes more rapid recurrence of plaque and calculus.

**Step #7) Irrigation.** The sulcus between the tooth and gum is flushed with water, saline or antiseptic solution to remove any loose particles of calculus, tissue, or polishing paste that could contribute to gingivitis.

**Step #8) Post cleaning exam and diagnostics.** During this part of the procedure, the depth of the pockets around each tooth is evaluated to assess for periodontal disease. The teeth are also evaluated for gum recession, bone loss, enamel damage, and loosening.

**Step #9) Charting** is performed. Charting allows for better communication in and between offices, as well as providing a record that can be used for future comparisons.

**Step #10) Specific dental therapy.** This is often the most involved part of the dental procedure. This includes oral surgical procedures such as surgical tooth extractions, periodontal surgery (the creation of gingival flaps to perform deep cleaning of teeth with advanced periodontal disease), and oral mass/tumor removals. It also includes non-surgical procedures such as placement of an antibiotic gel, called Doxirobe, which helps treat mild to moderate periodontal disease. Other procedures that may be performed include root canal therapy, restoration of damaged teeth, applying sealants to exposed dentin, and various other procedures.

These procedures will be fully discussed prior to your pet's dental cleaning procedure. Since it can be difficult or even impossible to predict the extent of dental disease prior to anesthetized exam and imaging, it is imperative that we are able to reach you during the procedure to discuss any additional treatment that may be necessary.

#### **Dental sealants:**

Dental sealants (OraVet or SANOS) are an optional addition. These are products that are applied to the tooth surface at the time of the anesthetized dental cleaning to help reduce the rate of bacterial colonization and plaque accumulation on teeth. Cost and required follow-up are different for each of these products. Dental sealants are beneficial for pets with periodontal disease or other inflammatory conditions, and can also be a useful adjunct to routine dental procedures.

#### ***How long does a dental procedure take to perform, and when can my pet come home?***

The length of time that it takes to perform dental cleaning, evaluation, and treatment is extremely variable depending upon many factors. Some of those factors are: how heavy the calculus deposits are, how many teeth are present, the size of the teeth (cat teeth have less surface area to clean than dog teeth, and therefore the procedure takes less time in cats), how severe the dental disease below the gumline is, what additional procedures (such as extractions) need to be performed, and how many procedures need to be performed. Certain procedures, such as root canal therapy, take longer than others. The length of time that it takes to do extractions depends on how diseased the teeth are and also on other factors such as ankylosis (where the tooth roots are tightly fused to the bone). Depending on the size of the animal, a complete professional dental cleaning can take between 60-90 minutes. If extractions or additional treatments are needed, the procedure may take several hours to complete. In rare cases where extensive dental work is needed, it is not practical to keep a pet under anesthesia for the length of time that it would require to do all that is necessary. In these situations, the dental work is performed in 2 separate procedures, weeks or months apart. Dental procedures cannot be both rushed and thorough at the same time. If they are not done properly, they are often of less benefit to the pet. This is unfair to both the pet and the owner.

On any given day, we have multiple dental procedures scheduled. Typically, all patients are checked in in the morning, and each patient's health status and dental needs are assessed. Patients that are higher risk (especially very young, very old, or sick pets) are often done first, followed by procedures that may require a longer anesthetic recovery. In most cases, we cannot guarantee that a specific pet will be done at a specific time. We will do our best to honor special requests based on the owner's schedule, etc., but this is not always possible (for example, if we have 2 owners that are each requesting that their pet be the first surgery of the day). We will call you when your pet's procedure has been completed and give you a time when your pet can be picked up. Please be aware that someone's pet must be first and someone's pet must be last on the schedule, and that there are very good reasons for the order in which procedures are performed. Please be understanding if your pet happens to be the "last" one of the day. Each pet is given our full care and

attention no matter what time their procedure is done. In some cases, procedures take longer than anticipated, and you may be picking up your pet after the hospital has closed to regular business. We do not keep pets in the hospital overnight. We prefer that pets go home for the night. We do not have 24-hour staffing at our hospital, and pets that stay overnight would not be supervised through the night. It is better for pets to be at home with their owners, both for the owner to be able to monitor the pet, and for the comfort of the pet. On rare occasions, when we know that we will be very late or have an emergency procedure, you may be asked to reschedule your pet's procedure.

***I have heard that dental cleaning can be performed without anesthesia. Is this true?***

There are unlicensed practitioners, and some licensed veterinarians, that offer dental cleaning without anesthesia, or with just sedation (see next item). This is ineffective and potentially dangerous. The most important parts of a dental cleaning include the cleaning below the gumline, probing around the teeth to detect hidden periodontal disease, and imaging. None of these can be adequately performed on an awake animal, either because the procedure is painful or because the animal must hold completely still for the procedure. An awake dental cleaning only allows for removal of the calculus above the gumline, which makes the teeth look nice, but does almost nothing to improve the health of the mouth. In fact, removing the calculus above the gumline gives the owner a false sense of security that the mouth is healthier than it truly is. In addition to inadequate ability to perform the essential parts of a dental cleaning procedure, awake dental cleaning procedures are potentially unsafe. The instrumentation used for dental cleaning is sharp and can cause damage if the pet moves at an unexpected time. The dental cleaning procedure also results in fluid and debris in the oral cavity, and if a pet does not have an endotracheal tube in place (which is part of general anesthesia) there is risk of inhaling fluid or debris. Inhaled fluid or debris can result in aspiration pneumonia or a lung abscess. Lastly, with the noise, instrumentation, and fluids present during the dental cleaning procedure, combined with the need for the pet to be held very still, creates a perfect storm of stress for even the most cooperative patients. Do yourself and your pet a favor, and do not fall into the trap of thinking that non-anesthetic dental cleaning procedures are beneficial.

***I am concerned about the risks of anesthesia. Is anesthesia safe?***

It is reasonable to be concerned about anesthesia. In fact, no one is more concerned about anesthetic safety than we are. Whenever veterinarians are considering any treatment, medication, or procedure, they must weigh out the risks vs. the benefits of the procedure. In the case of a dental procedure, there are major health benefits associated with treating and preventing periodontal disease and in treating other oral diseases. Treating these conditions makes a pet healthier, more comfortable, and in many cases more pleasant to be around. We take extensive anesthetic precautions for all of our patients. A pre-anesthetic exam and lab work are required for all pets that will be anesthetized, in order to determine any exceptional risk factors. All pets receive appropriate sedation and pain medication before, during, and after the procedure. Pets are kept on a heated table, with a warm air blanket covering them during the dental procedure to help maintain appropriate body temperature. Every patient is given intravenous fluids through an IV catheter. The IV catheter also allows rapid access to give additional medications, if needed, during the procedure. All patients are monitored with advanced monitoring equipment to assess oxygenation, pulse strength, heart activity, ventilation, temperature, blood pressure, and more. There are minimally 2, and in most cases 3, staff members present during every procedure. In the event that a pet has any unusual anesthetic concerns, we have rapid phone access to a board-certified veterinary anesthesiologist for consultation, if needed.

***Can a dental cleaning be performed by just using a heavy sedative, rather than general anesthesia, to make it safer?***

The concept that sedation for dental cleaning is safer than general anesthesia is false. While sedation may make a patient quiet enough to allow better ability to clean below the gumline, probe the teeth, and even take dental radiographs, it is less safe to do this, than to do the procedure under general anesthesia. Why? There are 2 primary reasons:

- First, sedation leaves the airway in the throat open to aspiration of fluid or debris that is generated during the cleaning process, possibly resulting in aspiration pneumonia or lung abscess. In addition, there are bacteria that are aerosolized during the cleaning process, and these bacteria can also contaminate the airway, resulting in bacterial tracheitis or pneumonia. During general anesthesia, an endotracheal tube is placed in the airway which protects the airway from contamination with fluids, loosened dental deposits, and bacteria.
- Second, when a pet is given injectable sedation, we have no control over the pet's response to the anesthetic. Once the injection is given, the only option in most cases is to wait until the drug wears off. The exception to this is that there are certain drugs that can be reversed. However, the sedation with these drugs cannot be regulated, and it is "all or none," regarding the level of sedation. During general anesthesia, the pet is given a gas anesthetic that can be increased (during a painful part of the procedure) or decreased (during non-painful parts of the procedure, or the pet is near the end of the anesthetic procedure), as needed.

***My pet has health problems and my veterinarian does not want to do anesthesia. Can a dental cleaning still be done?***

Many patients are referred to us for this very reason. Some veterinarians are trained or equipped to address anesthesia for pets with medical problems or special needs. Dr. Hewitt has been practicing veterinary medicine since 1990, and has extensive experience in anesthesia. In addition, our office has an arrangement with a board-certified veterinary anesthesiologist...Dr. Martin Kennedy. Dr. Kennedy is available to do remote pre-anesthetic consults and anesthetic planning for pets with health problems or special needs. In addition, he is available by phone during dental procedures in the event that we have any special concerns during a procedure. If Dr. Kennedy is consulted during a procedure, he is able to remotely access our monitoring equipment and live stream a pet's anesthetic parameters in real time, to assist when needed. For pets that have a higher anesthetic risk, Dr. Kennedy is able to remotely monitor the patient throughout the entire procedure when needed. All Dr. Kennedy's services are provided remotely, and he is never physically present in our hospital. In the event that we have a patient at very high risk, we have a different board-certified veterinary anesthesiologist that is able to fly in for the procedure and run the anesthesia directly. Having a veterinary anesthesiologist physically present for a procedure must be arranged well in advance, since there are no veterinary anesthesiologists that are local.

### ***How much does a dental cleaning procedure cost?***

It is impossible to determine the exact cost of the procedure because there is no way to know the true extent of the dental disease until we are able to do a complete exam and imaging under anesthesia. We will give you an estimate with a range of cost, based on your pet's condition and anticipated procedure. If the teeth and gums are healthy, then these will be the only costs. Additional fees are based on additional anesthesia time, pain management procedures, oral surgery or other procedures, and medications. The doctor or staff will provide an estimate for the initial anticipated treatment plan based on awake exam findings and can call you at your provided contact number with a final treatment plan and total cost after a tooth-by-tooth exam and dental imaging has been performed under anesthesia, if there are any deviations from the estimate. There is always a possibility that the actual cost of a procedure could be below or above the estimate given.

### ***How often does my pet need to have teeth cleaned by a veterinarian?***

It depends on the degree of plaque and calculus accumulation. The rate at which plaque/calculus develop is determined by multiple factors, including the type of food your pet eats (dry vs. wet, and if there are additives to aid in dental health), your pet's breed (smaller breeds and certain specific breeds develop problems more rapidly than others), hereditary factors, how well your pet's mouth is formed, and whether or not your pet is getting home dental care (also how often and what type of home care will influence this). Tooth brushing at a frequency of once daily or every other day is best. Once weekly brushing is still of some benefit to the pet but is less effective than daily brushing. Daily home dental hygiene is very helpful in maintaining oral health. If you cannot brush the teeth, then other forms of home dental care (dental chews, food/water additives, etc.) can be used.

The interval between recommended teeth cleaning procedures will vary from pet to pet. For most pets, this procedure is reasonable to do on an annual basis. Most small to medium breed dogs and most cats should have their first dental cleaning procedure at about 12-18 months of age, or younger if they have redness of the gums. For pets that have known periodontal disease, pets may need anesthetized dental cleaning as often as every 4-9 months. Other pets, especially larger breeds and pets getting regular home dental care, may only need a professional cleaning every 2-4 years, or even less often. Make sure to examine your pet's teeth monthly, and if you are uncertain whether your pet should have a dental cleaning or not, please schedule a dental examination with our office, so that we can advise you of the best approach.

Additional information can be found online at the web sites of:

Animal Dental Specialists of Nevada: [www.AnimalDentalNV.com](http://www.AnimalDentalNV.com)

The American Veterinary Dental College - [Animal Owner Resources – AVDC.org](http://www.AnimalOwnerResources-AVDC.org)

Veterinary Partner web site - <http://www.veterinarypartner.com>

Veterinary Oral Health Council – <http://www.vohc.org>

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